

Safety Data Sheet

1. Product and Company Identification

Product name:

CLEANING LIQUID FOR SOL INK, SL-CL
CLEANING LIQUID,(SL) 100ML
CLEANING LIQUID,(SL) 500ML

Manufacture:

Address: Roland DG Corporation
1-6-4 Shinmiyakoda, Kita-ku, Hamamatsu-shi,
Shizuoka-ken, 431-2103
JAPAN

Phone: + 81-53-484-1224

Fax: + 81-53-484-1226

Importer/Supplier:

Address: Roland DGA Corporation
15363 Barranca Parkway Irvine, CA 92618-2201
U.S.A.

Phone: 949-727-2100

Fax: 949 727 2112

Emergency telephone: 949-727-2100

Use of the product:

Inkjet Printing

Date of issue:

17 December, 2014

2. Hazard Identification

2.1 Emergency Overview:

Appearance and odor: Clear liquid and slightly odor

This product is classified as dangerous according to GHS.

Flammable liquids Category 4

Skin corrosion/irritation Category 2

GHS label elements, including precautionary statements

Pictogram



Signal word(s)

Warning

Hazard statement(s)

Combustible liquid.
Causes skin irritation.

Precautionary statement(s)

Prevention

Keep away from flames and hot surfaces. — No smoking.

Response

Wear protective gloves/protective clothing/eye protection/face protection.

IF ON SKIN: Wash with plenty of soap and water.

If skin irritation occurs: Get medical advice/attention.

Storage

Take off contaminated clothing and wash before reuse.

Store in a well-ventilated place. Keep cool.

2.2. OSHA regulatory status

This product is considered hazardous material by the OSHA Communication Standard (29 CFR 1910.1200)

2.3. Potential health effects

Likely route of exposure: Eye, skin, inhalation or oral.

Eyes: Contact with eye may be mildly irritating.

Skin: Contact with skin may cause irritation, swelling or redness.

Inhalation: Exposure to vapors (mist) will cause respiratory irritation and anesthesia.

Ingestion: May cause upset stomach.

Chronic Health Hazards: None Known.

Carcinogenicity: None of the ingredients in this ink is listed by IARC as a carcinogen. (1,2A and 2B)

See section 11 for more information.

2.4. Potential environmental effects

See section 12 for Ecological information.

3. Composition/information on ingredients

Composition	CAS No.	% By Weight	Classification HCS
Dipropylene glycol monomethyl ether	34590-94-8	40-50	Not classified as hazardous
Diethylene glycol diethyl ether	112-36-7	35-45	Skin Irrit. 2: H315
Triethylene glycol monomethyl ether	112-35-6	20-30	Not classified as hazardous

4. First Aid Measures

4.1. First aid procedures

Eyes: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Hold eyelids open during flushing. Call a physician.

Skin: In case of contact, immediately flush with plenty of water while removing contaminated clothing and shoes. Wash contaminated clothing before reuse. If swelling or redness occurs, call a physician.

Inhalation: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

Ingestion: If swallowed, DO NOT induce vomiting. Seek immediate medical advice.

4.2. Note to physicians

May cause skin and eye irritation. Excessive inhalation of mist will cause respiratory irritation.

5. Fire Fighting Measures

5.1. Flammable properties:

Combustible liquid under Hazard Communication Standard (HCS, U.S.A)

Flash Point: about 71 deg.C (closed cup)

5.2. Extinguishing media

Suitable extinguishing media:

Water spray, dry chemical, carbon dioxide or foam

Unsuitable extinguishing media:

No information

5.3. Protection of fire fighters

Special hazards arising from the substance or mixture

Toxic and irritating fume and/or gases may generate by combustion.

Protective equipment and precautions for firefighters

Wear self-contained breathing apparatus (SCBA) and full protective equipment.

Applying direct water may be dangerous because fire may expand to surroundings.

6. Accidental Release Measures

General:

Notify the appropriate authorities immediately. Take all additional action necessary to prevent and remedy the adverse effects of the spill. Absorb spill with sand or earth then place in a chemical waste container.

6.1. Personal precautions

Evacuate personnel, thoroughly ventilate area, use self-contained breathing apparatus and wear appropriate personal protective equipment.

6.2. Environmental precautions

Dike spill. Prevent liquid from entering sewers, waterways or low areas.

6.3. Methods for containment

Dike spilled product.

6.4. Methods for Clean-up

Soak up with sand or earth. Sweep up material and dispose as waste following local regulations. Scrub contaminated area with detergent and water.

6.5. Other information

No information

6.6. Spill or leak statements by type of chemical

Eliminate all ignition sources. Use appropriate personal protective equipment (PPE). Absorb and/or contain spill with inert sand, then place in suitable container. For large spills; use water spray to disperse vapors and dilute spill to a nonflammable mixture. Do not flush to sewer. Prevent run-off from entering drains, sewers or waterways.

7. Handling And Storage

7.1. Handling

Avoid contact with eyes, skin and clothing. Use proper ventilation and no fire in work place. Put protection wear that has electrical conductivity in case of work. Keep out of reach of children and do not drink. Do not dismantle container.

7.2. Storage

Do not store the product in high or freezing temperatures. Keep the product out of direct sunlight. Do not store the product with oxidizing agents or explosives.

8. Exposure Controls/Personal Protection

8.1. Exposure Guidelines

Occupational Exposure Limits:

EU:

components	TWA
Dipropylene glycol monomethyl ether	308mg/m ³ , 50ppm

DNEL

components	Long term exposure	Short term exposure
Dipropylene glycol monomethyl ether	310mg/m ³	-
Triethylene glycol monomethyl ether	156mg/m ³	-

REACH Toxicological Information (Workers - Hazard via inhalation route)

Australia: OELs

components	TWA
Dipropylene glycol monomethyl ether	308mg/m ³ , 50ppm

US:

components	OSHA:PEL	ACGIH:TLV
Dipropylene glycol monomethyl ether	TWA: 600mg/m ³ , 100ppm	TWA: 100ppm, 606 mg/m ³ STEL: 150ppm, 909 mg/m ³

California (California Code of Regulations, Title 8, Section 5155. Airborne Contaminants):

components	PEL	STEL
Dipropylene glycol monomethyl ether	100ppm, 600 mg/m ³	150ppm, 900 mg/m ³
Diethylene glycol diethyl ether	5ppm, 33mg/m ³	-

8.2. Engineering controls

Control the airborne concentrations below the exposure limits. Use only with adequate ventilation.

8.3. Personal protective equipment (PPE)

Eye/face protection:

Not required under suitable use as setting the cartridge on the printer. However, in case of direct contact to ink, wear safety glasses or chemical splash goggles.

Hand protection:

Not required under suitable use as setting the cartridge on the printer. However, in case of direct contact to ink, use protective gloves.

Skin protection:

Not required under suitable use as setting the cartridge on the printer. However, in case of direct contact to ink, wear protective clothing.

Respiratory protection:

In case ventilation is insufficient, wear respiratory protection. Use a half facepiece respirator (with gollges) or full face-piece respirator (without goggles) filtered with organic vapor cartridge.

General hygiene measures:

Wash hands after handling. In case contact with clothing, wash before reuse. Do not eat, drink or smoke in handling or storage area.

9. Physical and Chemical Properties

Appearance:	Clear Liquid
Odor:	Slightly
pH:	No data available
Boiling point:	No data available
Flash point:	about 71 deg.C (closed cup)
Flammability(solid,gas):	No data available
Explosive properties:	Explosive limits: 1.3~10.4v/v% (Dipropylene glycol monomethyl ether)
Oxidizing properties:	None
Vapor pressure:	No data available
Relative density:	No data available
Solubility:	No data available
Water Solubility:	Soluble
Partition coefficient: n-octanol/water:	No data available
Viscosity:	No data available
Vapor density:	Greater than 1 (air=1)
Evaporation rate:	No data available
Melting point:	No data available
Volatile organic compounds (VOC) content:	980.0 gram/liter (maximum value)

10. Stability and Reactivity

10.1. Reactivity:	No reactivity under normal temperature
10.2. Possibility of hazardous reactions:	Not expected
10.3. Chemical stability:	Stable under normal temperature
10.4. Conditions to avoid:	High and freezing temperatures
10.5. Incompatible materials:	Oxidizers and explosives
10.6. Hazardous decomposition products:	None under normal temperature

11. Toxicological information

*Based on toxicology data of chemically similar material

Acute toxicity:	Oral LD ₅₀	>2500mg/kg(Rat)*
	Dermal LD ₅₀	>2000mg/kg(Rat)*
	Inhalant LC ₅₀	No data available
Skin corrosion/irritation:	Mild irritant (Rabbit, OECD404)*	
Serious eye damage/eye irritation:	Mild irritant (Rabbit, OECD405)*	
Respiratory or skin sensitisation:	Non-sensitiser (LLNA, OECD 429)*	
Germ cell mutagenicity:	Negative (by Ames Test)*	
Reproductive toxicity:	No data available	
Carcinogenicity:	None of the ingredients in this ink is listed by IARC as a carcinogen. (1,2A and 2B)	
STOT-single exposure:	Overexposure of eye may be mildly irritating. Overexposure of skin may cause irritation and in some people swelling and redness. Inhalation may result in respiratory irritation and anesthesia. Ingestion may cause an upset stomach.	
STOT-repeated exposure:	No data available	
Aspiration hazard:	No data available	

12. Ecological Information

Ecotoxicity:	No data available
Persistence/Degradability:	No data available
Bioaccumulation/Accumulation:	No data available
Mobility in environment media:	No data available
Other adverse effects:	No data available

13. Disposal Considerations

Treatment, storage, transportation and disposal must be in accordance with applicable federal, state/provincial, and local regulations. Do not flush to surface water or sanitary sewer system.

14. Transport Information

- 14.1. UN Class/UN Number:
ADR/ADG/DOT, IMDG, or IATA : Not applicable
- 14.2. UN proper shipping name:
ADR/ADG/DOT, IMDG, or IATA : Not applicable
- 14.3. Transport hazard class(es):
ADR/ADG/DOT, IMDG, or IATA : Not applicable
- 14.4. Packing group:
ADR/ADG/DOT, IMDG, or IATA : Not applicable
- 14.5. Environmental hazards:
ADR/ADG/DOT, IMDG, or IATA : Not applicable
- 14.6. Special precautions for user: Transport and storage of the product in accordance with general precautions and instructions mentioned in this SDS.
- 14.7. Transport in bulk according to Annex II of MARPOL 73/78 and IBC code: Not applicable

15. Regulatory Information

US Information:

Toxic Substances Control Act (TSCA): All ingredients are listed on the TSCA Inventory.

Product contains Diethylene glycol diethyl ether that is subject to TSCA Section 5 SNUR and to TSCA Section 12(b) export notification requirements.

California Proposition 65: Not regulated

SARA TITLE III:

Section 313:

Diethylene glycol diethyl ether (Chemical Category N230)

Triethylene glycol monomethyl ether (Chemical Category N230)

EU Information:

Chemical Safety Assessment according to (EC)1907/2006:

This product has not carried out any Chemical Safety Assessment yet.

Australia Information:

Hazardous statement: Classified as hazardous according to NOHSC criteria.

16. Other Information

NFPA 704: Hazard Rating System

Health - 1 , Flammable - 2 , Reactivity - 0

0 = minimal hazard, 1 = slight hazard, 2 = moderate hazard, 3 = severe hazard, 4 = extreme hazard

The information in this Safety Data Sheet (SDS) is believed to be correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. It is subject to revision as additional knowledge and experience is gained. Roland DG does not warrant the completeness or accuracy of the information contained herein.